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RESEARCH AND DEVELOPMENT

MONTHLY REPORT

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MAY 1981

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Key to Distribution:

A. Complete Report

B. All except Research Report

C. All except Special Projects Research and those reports which might interfere with patent considerations

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PROJECT TITLE : BIOTECHNOLOGY

PERIOD COVERED : APRIL 17 - MAY 16, 1981

WRITTEN BY : Schulthess-D. (DIS)

TWO-STAGE DENITRATION (1)

Trials on the two-stage denitration (2) were continued. In a first fermenter, running at dilution rates of 0.13 hr^{-1} or 0.24 hr^{-1}, a total denitration was achieved using the minimal amount of sugar. The denitrated extract, containing also the yeast cells, was mixed with untreated extract without additives. This mixture was fed into a second fermenter at a dilution rate of 0.1hr^{-1}. The following additional results were obtained :

Table 1 : Two-Stage Denitration at Different Dilution Rates and Percentages of Treated Extract

D (hr^{-1}) first fermenter	Feed into the 2nd Fermenter		Final denitration %	Sugar * saving %
	Denitrated extract %	Untreated extract %		
0.13	75	25	87	12
0.13 **	75	25	100	25
0.24	50	50	71	21

* Percentage of nitrate that has been assimilated without adding extra sugar.

** Fed-batch system in the second fermenter. The fermenter was totally emptied as soon as it was full.

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Trials were undertaken where the quantity of glucose supplied to the first fermenter was reduced. As a result the denitration was not complete. For this reason, the extract was passed through a second fermenter to see whether total denitration could thus be brought about without any extra glucose being added.

The glucose : nitrate nitrogen ratio was lowered in several steps from the normal 36.9 to 25.8. The first results indicated that in the second fermenter denitration could not be improved to a considerable extent. However, the results also showed that under the conditions used the sugar supplied to the first fermenter may be reduced without negatively influencing the denitration. The trials will be repeated.

Schaefer

DIS/jig/MAY 22 1981

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PROJECT TITLE : PROTAGORAS

PERIOD COVERED : APRIL 16 - MAY 20, 1981

WRITTEN BY : Bindler G.-N. (GNB)

TOBACCO EXTRACTION

The ØS - B - TOT blend was extracted with water and subsequently with KOH, as described in the previous monthly report. In order to increase the extraction of proteins, a protease treatment was added.

As the tobacco has quite a high pH after the KOH treatment, an enzyme had to be found that also shows an optimal activity at high pH-values. Pronase (Boehringer, Mannheim) shows this characteristic.

In this protease treatment, 10 g of tobacco was extracted in a ratio of 1 : 10 with water in the presence of 30 mg of pronase at 37°C for 3 hours. With this enzyme extraction it was possible to solubilize at least 30% of the initial tobacco proteins.

PROTEASE PRODUCTION

The following strains were screened for protease production :

Bacillus licheniformis
Streptomyces albus
Bacillus amyloliquefaciens
Bacillus sp.
Cryptococus maurans

All these strains produce protease in a complex medium. The cultivation of these strains is in progress.

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These proteases will be partially purified and tested for use in tobacco protein extraction. When positive results are obtained the enzyme production will be optimized.

REFERENCE

(1) Notebook, Mangilli M.-F. No. 80 - 08.05.

G.-N. Bindler

GNB/jig JUNE 4 1981

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PROJECT TITLE : SAVOURY

PERIOD COVERED : APRIL 16 - MAY 15, 1981

WRITTEN BY : Ghiste-P. (PAG)

The purpose of Project SAVOURY is to prepare flavours which, when pyrolized with sheet or tobacco, give burley type flavour characteristics.

Production of Reaction Flavours

Two nonenzymatic browning reactions were conducted with the following experimental variables:

Flavour code	C-38/1(1)	P-15(2)
Initial amino acid composition	Standard hydrolysis HCl (6N)	Standard hydrolysis H_3PO_4-(10N)
pH of reaction	10,0	10,0
Neutralizing agent	NH_4OH	NH_4OH
Sugar used	Xylose	Glucose
Total solid content%	43	45
Final pH	9,5	9,0
Temperature of reaction (°C)	90	90
Time of reaction (hr)	96	96

The pH, total solid content and type of sugar were parameters that were changed. These same parameters will be modified once more during the next few months in order that their specific influence on flavour development may be further studied.

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PANEL EVALUATION

Following discussions with PME-LEAF DEPARTMENT (3) several individual burley grades were treated separately and they will serve as a basis for our flavour evaluation (Maillards reaction products). It should also be mentioned that two of these Burley grades (Greek burley and US burley) were only humidified with the Mallet and then cut. This was done in order to see the difference between a pure burley tobacco taste and a treated burley taste.

Cigarettes made with this tobacco will be produced in the near future.

REFERENCES

(1) Ghiste-P. notebook 791210 p14.

(2) Ghiste-P. notebook 791210 p15.

(3) Ghiste-P. Monthly Report, April 15, 1981.

P. Ghiste

PAG/jig/MAY 20 1981

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PROJECT TITLE : SALAMANDER-II

PERIOD COVERED : MAY 1981

WRITTEN BY : Genoud-Y. (YVG)

SUMMARY OF PREVIOUS RESULTS

The previous experiments led to the following conclusions about smoke components reacting with cysteine under the conditions of the ISH measurements :

Components having no effect :

- Semi-volatile and tar components
- Organic gas-phase
- Inorganic components with boiling points down to - 120°C.
- free-radicals

Components having a possible effect :

- Very volatile inorganic gases
- NO
- CO

REACTIVITY OF PURE GASES NO, CO and O_2 WITH CYSTEINE

Procedure

The data for cigarette ØS-8-TOT, used as a standard, are :

NO : 0.31 mg/cig or 9.3 mg/30 cig
CO : 16.1 mg/cig or 483 mg/30 cig

A bag containing the same amounts of NO or CO, as in the smoke of 30 cigarettes ØS-8-TOT, is connected to the smoking machine. The volume is adjusted to 8400 ml (30 cig x 8 puffs x 35 ml) with nitrogen.

In this way the pure gases are introduced into the flask containing the cysteine solution at the same rate as for a normal smoking experiment. Experiments are made with NO alone, CO alone and a mixture of NO + CO.

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In order to reproduce normal smoking conditions, a second bag containing oxygen is connected to the smoking machine. In this case the first bag contains 6700 ml of NO and/or CO in nitrogen and the second bag 1700 ml of oxygen (20% of 8400 ml).

A blank is made by using air alone.

The results are given in Table 1.

TABLE 1 : Effect of Pure Gases on Cysteine

Trial	ISH %
ØS-B-TOT	39 ± 2
air	0
NO + N_2	0
CO + N_2	0
NO + CO + N_2	8 ± 2
NO + N_2 + O_2	20 ± 2
CO + N_2 + O_2	0
NO + CO + N_2 + O_2	18 ± 4

Conclusions

- Air (or oxygen), NO and CO alone have no effect on the ISH.
- Mixtures of NO/CO in N_2 and of CO in N_2/O_2 do not significantly react with cysteine.
- NO contributes about 50% of the ISH value, but only in the presence of oxygen.

YVG/jig/MAY 25 1981

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PROJECT TITLE : ROSA

PERIOD COVERED : APRIL 17 - May 16, 1981

WRITTEN BY : Murray-M. (MUM)

OBJECTIVE

The objective of Project ROSA is to produce cigarettes with reduced mainstream and sidestream nitrosamine delivery. It is intended to study the influence of nitrosation inhibitors on sidestream deliveries, while mainstream nitrosamine reduction should be brought about by selective filtration.

EXPERIMENTAL

Cigarettes have been prepared from Burley tobacco (Project SPOTLESS ØS-B-BU), with increased reducing sugar levels. These will be analysed for DMN and NPY content of sidestream smoke.

This tobacco (4-ØS-B-BU) has also been treated with other reducing agents such as sorbic acid and BHA (butylated-hydroxyanisole). Cigarettes are being prepared for nitrosamine sidestream smoke analysis using this modified tobacco.

A commercial air trapping device for nitrosamines has been examined. A patent search indicates that the solid absorbent is Florisil - a magnesium silicate - and that the artifact formation inhibiting agent is Sulphamic Acid. This has been confirmed by analysis.

Michael Murray

MUM/jig/MAY 21 1981

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PROJECT TITLE : ANALYTICAL INVESTIGATIONS

PERIOD COVERED : APRIL 17 - MAY 18, 1981

WRITTEN BY : Moser-F. (FMO)

VOLATILE N-NITROSAMINES

As service for Project ROSA, DMN and NPY delivery from the sidestream smoke of 16 selected single tobacco type cigarettes (BUR, FC, MD and AC) was determined. Cigarettes were prepared according to TLA specifications.

HEADSPACE GAS CHROMATOGRAPHY

The equipment for headspace analysis, Carlo Erba gas chromatograph model 2900 with automatic headspace sampling system HS 250 was received and installed. Operating procedures for the instrument are presently being mastered.

SERVICE FOR OTHER GROUPS

- The SH index was determined in 30 TLA samples.
- The total alkaloid content of three different cut fillers (Richmond/East Germany blend, PMG/Berlin domestic blend and FTR blend) was determined for QC (1) by pikrate-, Technicon-, UV- and GC-methods (2).

REFERENCES

(1) Memo from F. Senehi to W. Fink dated April 10, 1981.

(2) Memo from W. Fink to F. Senehi dated April 29, 1981.

FMO/jig/MAY 21 1981

F. Moser

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PROJECT TITLE : ANALYTICAL INVESTIGATIONS

PERIOD COVERED : APRIL 15 - MAY 15, 1981

WRITTEN BY : Piadé-J.-J. (JJP)

QUANTITATION OF INDIVIDUAL SUGARS BY HPLC

A method for the quantitation of individual sugars in tobacco has been developed, using the HP 1084 HPLC system equipped with a HP RI detector. A 25 cm Whatman PAC 10 column is used in conjunction with a Corasil AX guard column and eluted with a 80/20 CH_3CN/H_2O mixture.

As an application, fructose, glucose and sucrose were quantitized in Spotless OR, FC and BU tobaccos. The method is also applicable to other sugars in tobacco. The sample clean-up was derived from an unpublished method previously described by Ayers (1). The only difference was a further clean-up with a Sep-Pak cartridge.

Detection limit could be brought down to 1µg for fructose.

Detector response is about the same for all three sugars and linear within the range investigated.

Standard deviation for sets of tobacco samples analyzed on different days was found to be within about 5%.

It should be noted that integrator readings can be misleading in the case of small and broad peaks, due to negative peaks, frequent baseline drifts and electrical noise at high sensitivities.

REFERENCE

(1) C.W. Ayers, private communication

JJP/jig/May 21 1981

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PROJECT TITLE : ANALYTICAL INVESTIGATIONS

PERIOD COVERED : APRIL 17 - MAY 15, 1981

WRITTEN BY : Lecoultre-E. (ETL)

ORGANIC ACIDS BY GC

Work on the development of a gas chromatographic method for the group analysis of citric, lactic, malic, succinic, fumaric, tartaric, pyruvic and oxalic acids in fermented tobacco extracts, requested by Biotechnology (1), has been completed. A typical gas chromatogram of an experimental sample is shown in the figure.

A PME Analytical Method is presently being prepared.

ORGANIC ACIDS AND PHENOLS BY GC

As an extension to our work on the determination of organic acids in fermented tobacco extracts, an analytical procedure for the simultaneous analysis of a wide range of aliphatic C_2-C_{18} and aromatic mono carboxylic acids and of phenols in tobacco and in tobacco smoke condensate, is presently being investigated. The method involves a steam distillation step (clean-up), derivatization of acids and phenols by extractive alkylation, using penta-fluorobenzylbromine / tetrabutylammonium ion and analysis of pentafluorobenzyl esters and pentafluorobenzyl ethers by $(GC)^2$ and EC detection.

SERVICE FOR OTHER GROUPS

- Six triacetin samples were analysed for QC by $(GC)^2$ (2)(3).
- Phosphate and sulfate were determined in 85 samples for Biotechnology.
- Amino acids were analysed in 12 samples of Project SAVOURY.

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REPORT WRITTEN

"CF in Filler by Gas Chromatography", PME Analytical Method.

REFERENCES

(1) Memo from Gaisch-H. to Fink-W., September 1980

(2) Memo from Widmer-A. to Fink-W., May 1981

(3) Memo from Lecoultre-E. to Fink-W., May 19, 1981

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ETL/jig/MAY 26 1981

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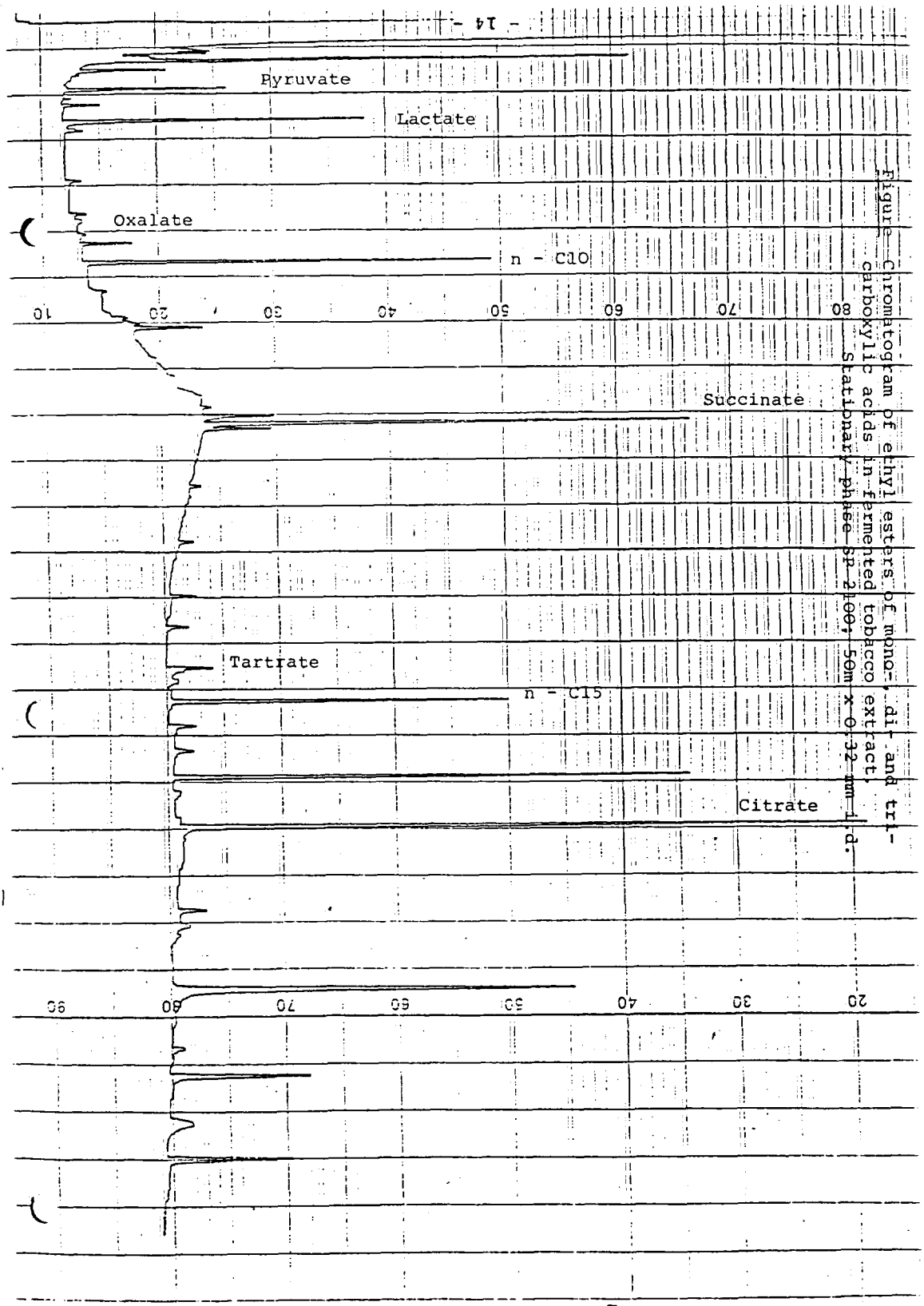

Figure: Chromatogram of ethyl esters of mono-, di- and tri-carboxylic acids in fermented tobacco extract. Stationary phase SP 2100, 50m x 0.32 mm i.d.

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PROJECT TITLE : ANALYTICAL INVESTIGATIONS

PERIOD COVERED : APRIL 17 - MAY 16, 1981

WRITTEN BY : Murray-M. (MUM)

Two tobacco contaminants on lot 1678 (Indian flue-cured) were examined at the request of the Leaf Department (1). Chemical tests and spectroscopic examination (IR) indicate that one contaminant is polyvinyl chloride while the other is asbestos. Neither could be regarded as desirable components of tobacco for smoking purposes (2).

REFERENCE

(1) Memo from C. Allemand to W. Fink dated April 16, 1981.

(2) Memo from W. Fink to C. Allemand dated May 7, 1981.

MUM/jig/MAY 21 1981

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PROJECT TITLE : AGRICULTURAL CHEMICALS

PERIOD COVERED : APRIL - MAY 1981

WRITTEN BY : Speck-M.

ROUTINE ANALYSIS

Number of samples analysed for pesticide residues in April/May:

Organochlorines	133
Organophosphorus	133
Dithiocarbamate	133
Maleic Hydrazide (MH-30)	85

MH-30

In consequence of the increasing amounts of residual MH-30 found on American flue-cured leaf tobacco, some PM brands selected by the Leaf Department, Lausanne, as well as Reynold's Camel (Germany), were checked monthly between June and December 1980 for MH-30. Brands and MH-30 values found are summarized in the Table, with one exception (MLB Eindhoven, October). MH-30 residues on finished products did not exceed the amount of 80 ppm recommended by the "West German Regulation on Maximum Pesticide Residue Levels". In general there was no noticeable trend to higher MH-30 values from June to December 1980.

MS/jig/MAY 20 1981

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TABLE : MH - 30 Values (ppm) of PM Brands Between June and December 1980

BRANDS	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
PMI Munich (PMI 01)	*	34.6	47.2	44.9	*	24.6	28.8
MLF Serrieres (MLF 21)	43.8	44.5	52.6	50.7	53.8	52.2	53.0
MLF Holland (MLF 20)	44.2	50.7	*	46.8	38.0	48.8	41.5
MLF Austria (MLF 06)	26.1	24.6	28.0	28.0	35.3	39.9	35.7
MLK London (MLK 09)	42.2	56.5	39.6	*	56.1	43.8	38.4
MLB Weltab (MLB 18)	56.4	57.6	44.2	55.3	55.3	36.1	44.5
MLB Eindhoven (MLB 02)	49.5	49.5	*	*	86.8	51.5	47.2
CAMEL Germany	34.6	43.4	34.6	*	32.3	45.7	36.1

* No samples available

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PROJECT TITLE : NITRATE-REDUCTION BY CONTROLLED FERMENTATION

PERIOD COVERED : APRIL 21 - MAY 20 1981

WRITTEN BY : Ruf-C. (CLR)

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1. TRIALS

1.1. LEAR Trial 3

Due to the technical problems previously reported (1) trial No 3 was extended until May 1.
At a dilution rate of 0.2 hr^{-1} total denitration of the extract was achieved, but the acid consumption rose to 2.5 times greater than the usual one. As the sugar was added for the nitrate-nitrogen only, the micro-organisms found, in the lactic acid, the supplementary energy source they needed for the assimilation of both nitrate- and ammonia- nitrogen. To prove this, lactic acid was replaced at a certain moment by phosphoric acid. A few hours later, a residual amount of nitrates appeared in the fermented extract and increased until there was no more denitration at all. The influence of ammonia on nitrate-assimilation was therefore confirmed and this phenomenon will be carefully studied.

1.2. LEAR Trial 4

This trial was carried out from May 5 to 9 and its objective was the same as LEAR trial 2, ie the total denitration of the Burley part. In order to circumvent the problems described above, the sugar was added in a concentration corresponding to the sum of NO_3-N (730 ppm) and NH_3-N (1240 ppm). Problems occurred with the continuous denitration at a dilution rate of 0.2 hr^{-1}: 260 ppm NO_3-N remained in the fermented extract. Therefore the dilution rate was lowered and kept at 0.1 during the rest of the trial. However as in the case of LEAR trial 2, the extract became impossible to centrifuge and to concentrate because of its high viscosity. This modification was due to an infection by micro-organisms other than yeasts. Since it was the third time that such a problem occurred, the sterility of the pipes, the sampling valves and the fermenter will have to be checked.

1.3. LEAR Trial 5

It has been shown that some of the ammonium ions found in a strip extract came from the decomposition of nitrogen-containing constituents during a high temperature extraction. The extraction

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grade of ammonia-nitrogen decreased with temperature more than that of nitrate-nitrogen. For this reason, during LEAR trial 5, a lo temperature (15°C) extraction was carried out and an extract containing only a little more NH_3-N than NO_3-N (480 ppm vs 400 ppm) was obtained. This extract was fully denitrated at a dilution rate of 0.2 in the 20-l fermenter without any problems occurring. Therefore some work is being done to study the most suitable extraction conditions at low temperature, by varying the residence time, the strip to water ratio, etc (2).

2. CIGARETTES

Eight different test cigarettes have recently been produced (3). Most of the analytical results have been obtained and subjective evaluation will soon take place.

3. PILOT-PLANT

See monthly report : "Pilot-Plant Operations" May 1981 by N. Lüthi.

4. NINOMASS

A meeting was held on May 7 with representatives from UFA to discuss their report and future tests using Ninomass as chicken fodder (4) (5).

5. REFERENCES

1. Ruf-C Monthly report (April 1981)
2. Lüthi-N Monthly report (May 1981)
3. Borgognon-D Monthly report (May 1981)
4. Karbacher-P "Minutes of the meeting in Sursee" (May 8 1981)
5. Karbacher-P Monthly report (May 1981)

CLR/sde/JUNE 1 1981

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PROJECT TITLE : PROJECT LEAR, CIGARETTE PROTOTYPES

PERIOD COVERED : APRIL 17 - MAY 21 1981

WRITTEN BY : Borgognon-D. (DIB)

During the period covered by the report, 4 control cigarettes and 4 trial cigarettes were made according to plan.

1. Control Cigarettes

1.1. LEAR 0-17-7

This cigarette was produced with 100% untreated special Burley. It uses a special leaf-formula selected by Mr Karle for the LEAR Burley strip denitration. The Burley tobacco was only humidified with the Mallet and was then cut (1).

1.2. LEAR 0-17-4

This cigarette was made with 100% current Burley tobacco which had undergone Burley treatment (2). The Burley tobacco was not denitrated.

1.3. LEAR 0-17-1

This is a MLK-cigarette with Burley treatment. The pre-cutting solution was applied to all the components apart from the Burley, the expanded stems and the expanded strips. The after cut solution was applied to all the tobaccos (1+ 3).

1.4. LEAR 0-17-6

For this cigarette 100% treated special Burley was utilized. It uses the same leaf-formula as the cigarette LEAR 0-17-7, but the tobacco underwent Burley treatment (1 + 2 + 3).

2. Trial Cigarettes

2.1. LEAR 1-17-4

The cigarette was manufactured with 100% extracted and re-applied Burley without denitration (1 + 2). The Burley tobacco underwent Burley treatment (2).

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2.2. LEAR 2-17-3

This cigarette was produced with 100% extracted, fermented and re-applied Burley, without Burley treatment. The tobacco was humidified and cut.

2.3. LEAR 1-17-1

This cigarette is a MLK with extracted and re-applied Burley. It underwent the same treatment as LEAR 0-17-1.

2.4. LEAR 2-17-2

This cigarette is also a MLK, but with extracted, fermented and re-applied Burley without Burley treatment. The pre-cutting solution was applied to all the components apart from the Burley, the expanded stems and the expanded strips. The after-cut solution was applied to all the tobaccos (1 + 3).

3. Cutting of the Tobacco

The cutting of the tobacco for all these cigarettes was carried out in a small cutting machine for microfilm. For the future trials, a KTF production cutting machine will be used.

4. REFERENCES

1. Ruf-C "P-V de la séance de planification du projet LEAR" (March 4 1981)
2. Borgognon-D Monthly report (April 1981)
3. Borgognon-D Notebook 79104 p 42 - 46

D. Borgognon

DIB/sde/JUNE 1 1981

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PROJECT TITLE : PILOT-PLANT OPERATIONS

PERIOD COVERED : APRIL 21 - MAY 22 1981

WRITTEN BY : Lüthi-N. (NIL)

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1. EQUIPMENT

1.1. Dewatering

With the improved working conditions (1) of the make-shift roller we obtained a water reduction of about 25%.
To improve upon this we are now trying other systems for creating a higher vacuum under the belt.

1.2. Rotocell Extractor

The continuous feeding system of the rotocell extractor worked well during LEAR trials 2 and 4. These trials were run continuously over a period of about 4 days.

1.3. Sterilization Line of the Extract

Due to some problems encountered with the fermentation of the strip-extract (2) the sterility of the sterilization line of the extract was tested. This test showed that an infection appeared in the fermenter after it had been running for a short time. Unfortunately it is not certain that the air filter of the fermenter was also sterilized. Therefore this test has to be repeated.

2. PERSONNEL

An apprentice lab technician, Ms J. Calame began work in our laboratory on May 4. She will work in the Pilot-Plant until the end of June, as a part of her training program.

3. EXTRACTION TRIALS

Due to the problems with the fermentation of the strip-extract (2) further extraction trials were carried out at low feedwater temperatures where only the extraction time was varied.

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The following conditions were kept constant :

Extraction temperature	12°C
Ratio strips to water	1 : 9
Input strips	1 kg / extractor cell

The results are shown in the table below.

Extraction time	Extraction grades NO_3-N	NH_3-N	HWS	Ratio of extraction grades NO_3-N / HWS
60 min	75%	58%	31%	2.4
90 min	83%	63%	42%	2.0
120 min	57%	66%	39%	1.5

Table 1 : Effect of extraction time on extraction grades of strips

It can be seen that the best extraction grade of NO_3-N was achieved with a residence time of 90 min.
However after considering the extraction grade ratio of NO_3-N to HWS, it would seem more appropriate to extract at a residence time of 60 min. In this case we would get an extraction grade of nitrate-nitrogen of 75% by only washing out 31% of the hot water solubles. This would give an extraction grade ratio of 2.4 which is almost the highest ratio we have ever had since the start-up of the strip-extraction trials.
Trials will be continued to see whether these results can still be improved upon.

4. REFERENCES

1. Ruf-C Monthly report "Pilot-Plant Operations" (March 1981)
2. Ruf-C Monthly report "Nitrate-Reduction by Controlled Fermentation" (May 1981)

NIL/sde/JUNE 1 1981

Φ00014356

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : RECONSTITUTED TOBACCO

PERIOD COVERED : APRIL 17 - MAY 20 1981

WRITTEN BY : Karbacher-P. (KPA)

From May 4 till May 15 we had a shut-down period in the Monique/RCB process. This time was necessary in order to carry out important modifications. Normal maintenance was also done during this time.

Rubber Roll

The rubber roll, supplied by Huber & Suhner, was replaced with a new one from the same company. We are very satisfied with this new supplier. The lifetime of one roll is longer, we have no stripes in the sheet and the price is cheaper.

Steel Belt

The belt became deformed again. Sandvik informed us that a third reflattening operation is not advisable. Due to this, the steel belt was replaced by a spare of the same type : Sandvik 12 R 11. The bronze belt supports were also changed.

After Dryer

A new dryer belt was installed. As this belt is driven by two chains on each side, some modifications on the driving rolls were necessary. With this new driving system, the lifetime of the belt should be longer.

Oven Insulation

The old oven insulation was taken away and new, more efficient insulation doors were installed. The heat loss should now be reduced and, in addition, it is easier to open the oven to check the inside.

Ventilation System

A new fan, with suction channels in the slurry mixer area, was installed. This installation is necessary due to the high ammonia content of the ambient air. This fan should also reduce the ambient air temperature during summer time.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Product Utilization

The current utilization of Monique/RCB sheet is 5% in Marlboro.
Neither Trial MLF 805 with 6.7% nor MLF 806 with 8.7% were accepted by panel A (1).
Trial Ambassador MAA 995 with 1.7% was also refused by panel A (2).

REFERENCES

1. Test de dégustation du 12.5.1981
2. Test de dégustation du 30.4.1981

H. Friedrich

Friedrich-H.

KPA/sde/JUNE 1 1981

000144358

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : UNIT OPERATIONS I

PERIOD COVERED : APRIL 17 - MAY 20 1981

WRITTEN BY : Karbacher-P. (KPA)

NINOMASS

On Thursday May 7 1981, a meeting was held in Sursee with Dr H.P. Pfirter UFA Winterthur and Dr A. Durrer VLGZ Sursee (1). First, the report (2) we received from UFA Winterthur concerning the test results Ninomass for chickens was discussed.
As R&D Neuchâtel is interested in continuing to test Ninomass on animals, Dr Pfirter and Dr Durrer explained what should be done in the future.
Dr Pfirter will establish a detailed program setting the next steps and defining how many kg of Ninomass will be needed.

REFERENCES

1. P-V de la séance Ninomass à Sursee du 7.5.1981
2. Pfirter-H.P. UFA Winterthur report "Versuchsbericht über die Prüfung von HEFE der Firma PHILIP MORRIS als Bestandteil von Geglügelmastfutter (March 25 1981).

H. Friedrich

Friedrich-H.

KPA/sde/JUNE 1 1981

0000144359

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : CIGARETTE DEVELOPMENT 1

PERIOD COVERED : APRIL 28 - MAY 20 1981

WRITTEN BY : Singer-Z. (ZDS)

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335 LOLITA PRODUCT TEST IN GERMANY

Objective

To develop a full-flavour cigarette having taste characteristics close to those of the L & M brands.
K = 10 mg/cig.
N = 0.8 mg/cig.
Format : 7.95 / 25 / 84.4 mm

Summary

Prototypes 52 and 63 (containing CF) will be product tested in Germany.

Description of samples and results

The cigarettes for the test (Nos 52 T, 63 T) were produced in PMG Munich.
The cut-filler and filter rods were shipped from FTR Neuchâtel. Before running, the trials were made with materials destined for Germany and the samples of cigarettes produced (52 C3, 63 C1) were kept for further comparison with the test-cigarettes.
The cigarette samples of candidates Nos 52 T, 63 T have already been analysed using the DIN method and taste evaluated by local smoking Panels in FTR and in PMG. The analytical figures are within the objective. Tastewise, prototype 52 T was found to be indentical to No 52 C3; No 63 T differed in flavour intensity from No 63 C1. The cigarette will be submitted to Panel A.

Φ00144360

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

365 BARBARA

Objective

K = 15 mg/cig.
N = 1 mg/cig.

Summary

The previous prototype 7 C1 was reproduced in FTR Neuchâtel (prototype No 20 P). The analytical figures were within the objective (K = 14.2 mg/cig., N = 0.98 mg/cig.).
The product was taste evaluated by the expert Panel A with the following result : "We prefer trial 20 P which gives the typical character of BARBARA".
This cigarette was submitted to the German Marketing Department. In their opinion, this candidate has no chance of beating the CAMEL FILTER in the product test. Therefore, immediate action was taken in order to have a cigarette which shows better performance.

Description of samples and results

Using the construction of prototype 7 C1 (20 P), trials were made with two blends :

DB0136504N02 (modification of the previous one DB0136502R02)
DB0136503N02 (11 % of ETFC)
at two tobacco weights.

The flavour application rate was varied too :

- Processing version A : 0 l E AC-25 / 1'000 kg total blend
- Processing version B : 20 l E AC-25 / 1'000 kg total blend
- Processing version C : 14 l E AC-25 / 1'000 kg total blend

Trials were run at the same time in FTR and in PMG Munich.

All the prototypes produced are being analysed and taste evaluated. The candidates selected will be presented to the German Marketing Department.

Φ0001443361

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

402 PITCH III PRODUCT TEST IN GERMANY

Objective

TAR = 3 mg/cig.
SN = 0.3 mg/cig.
Format : 7.95 / 25 / 84.4 mm
Taste direction : GAMMA

Summary

The German Marketing Department has accepted the version 11 P (with double filter) which will be product tested against the LORD EXTRA and R-6.
The product test cigarettes will be produced in PMG Munich.
The filter rod used has been shipped from FTR.

416 PRINCE

Objective

K = max. 14 - 15 mg/cig.
N = 0.8 - 1 mg/cig.
Format : 7.95 / 20 / 84 mm

Summary

The development is based on the new blend No D80141601N25 containing :

Reconstituted	14 %
Added stems	14.5 %
Flue-cured	45 %
Burley	21 %
Orient	5.5 %

In order to achieve equal or similar qualities to those of the aimed competitive brand, the tobacco underwent different treatments.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

	TYPE MAA		TYPE MLF		
Burley casing	Without Burley		E BC-19	E BC-18	E BC-18
Burley Top Flavour	Treatment		ETF-3	ETF-3	ETF-3
Pre-Cut	E PC-6	CD-4A-PC	E PC-7	E PC-7	CD-4A-PC
Processing Version	A	B	C	D	E

Description of samples and results

Using the smoke yield prediction program, the theoretical tobacco weight and the analytical figures of the reference cigarette have been calculated.
The constructions have been suggested as follows :

Filter :	Tow	2.5 Y / 48'000	3.4 I / 46'000
	Plug wrap	FU-POV 100	FU-POV 40
	Cigarette paper	WP 60	WP 60
	Tipping paper	4 M. 0.11.6.5	Z3 / 60

For each processing version, trials were made using both constructions.

ZDS/cap/MAY 26 1981

Φ00014436 3

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : CIGARETTE DEVELOPMENT 2

PERIOD COVERED : APRIL 30 - MAY 21 1981

WRITTEN BY : Frattolillo-A. (ANF)

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400 COMMONWEALTH 4 (Control)

Objective

To develop a low-tar Virginia cigarette of high quality, delivering 4.0 mg tar and conforming to the Hunter list.

Description of samples and results

For the task, a blend of tobacco called COMMONWEALTH 4 Control was established and filed under No GB1040001N02. This blend will later be incorporated in a conventional filter cigarette having a format of 7.95 mm diameter, 20 mm filter plug and a total cigarette length of 84.4 mm.
The strips of tobacco, from various grades, were conditioned to 20 % moisture prior to entering the blending-box and then conveyed to the cutter which was previously adjusted to give a cut-size of ca. 0.7 mm or 36 c.i.
The blend of the whole stems, after preconditioning, passed through the flattening-rollers at a clearance of +/- 0.2 mm, then it entered the cutter at ca. 33 % moisture.
The cutter was previously adjusted to give a cut-size of ca. 0.17 mm or 149 c.i. From there, it passed into the superwetting cylinder were the moisture level of the cut-stems rose to 48 % and, at this moisture, the cut-stems were bulked for a period of 45 min. to help the surface H_2O completely penetrate the strands. After leaving the bulking-box, the cut-stems were then fed through the toasting line and upon exit they had a 19 % moisture content. The finished cut-filler, containing additional ET, showed at the final dryer exit a good 13.7 % moisture content.
In the preparation and processing of all the blend components, great attention was given to the moisture levels at the different processing steps. This was done as such a blend did not include PC/AC ingredients nor flavourants.
Prior to the making of cigarette prototypes, two of the cut-filler components were separately analysed for their strand quality. The results obtained are stated below.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

COMMONWEALTH 4 - CONTROL -
CUT-FILLER DEGRADATION ANALYSES
SCREEN SIZE

Tobacco origin	No 10 % $\bar{x}^3$	No 20 % $\bar{x}^3$	No 30 % $\bar{x}^3$	No 50 % $\bar{x}^3$	Fines % $\bar{x}^3$	Moisture % $\bar{x}^3$	Filling power ml/10 gr at 12 % moisture $\bar{x}^{12}$
F T R	48.7	39.8	9.1	2.1	0,3	13.4	36.5

CUT-ROLLED-STEMS (CRS)

F T R	31.5	60.2	5.7	2.2	0.4	13.4	43,6

Comments

In consideration of the reduced size of the tobacco strands, in the components of the cut-filler (strips and stems), and the lack of ingredients, ie. humectants, we can say that the physical characteristics of the cut-filler and those of the cut-rolled-stems (CRS) proved to be of good quality.
At this time, no results concerning the total qualities of the cigarette prototypes produced were available. A complete evaluation will be presented in the next report.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

420 COMMONWEALTH 9 (Control)

Objective

To develop a Virginia cigarette of high quality, delivering 9.0 mg tar, which conforms to the Hunter list.

Description of samples and results

For the task, a blend of tobacco called COMMONWEALTH 9 Control was established and filed under No GB1042001N02. This blend will later be incorporated in a conventional filter cigarette having the following formats :

a) 7.95 mm diameter
25.0 mm filter-plug
84.4 mm total cigarette length

b) 7.95 mm diameter
20.0 mm filter-plug
84.4 mm total cigarette length

Tobacco strips, of various grades, were conditioned to ca. 20 % moisture prior to entering the blending-box and then conveyed to the cutter which was previously adjusted to give a cut-size of ca. 0.7 mm or 36 c.i.
The blend of the whole stems, after preconditioning, passed through the flattening-rollers, set at a clearance of +/- 0.2 mm, then it entered the cutter at ca. 33 % moisture. The cutter was previously adjusted to give a cut-size of ca. 0.17 mm or 149 c.i. From there, it passed into the super-wetting cylinder where the moisture level of the cut-stems rose up to 44 % and, at this moisture, the cut-stems were bulked for a period of 45 min. to help the surface H_2O completely penetrate the strands. After leaving the bulking-box, the cut-stems were fed through the toasting line and upon exit they had a 19 % moisture content. The finished cut-filler, at the final dryer exit, showed a low, 12 %, moisture content. It should be noted that, in the processing of the above blend, no PC/AC ingredients nor flavourants were employed.
This cut-filler, containing no ET, prior to use in the making of cigarette prototypes, was analysed for the quality of the two blend components as shown below.

ϕ00014436

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

COMMONWEALTH 9 - CONTROL -
CUT-FILLER DEGRADATION ANALYSES
SCREEN SIZE

Tobacco origin	No 10 % $\bar{x}^3$	No 20 % $\bar{x}^3$	No 30 % $\bar{x}^3$	No 50 % $\bar{x}^3$	Fines % $\bar{x}^3$	Moisture % $\bar{x}^3$	Filling power ml/10 gr at 12 % moisture $\bar{x}^{12}$
F T R	47.6	38.3	10.5	2.8	0.8	12.8	35.3

CUT-ROLLED-STEMS (CRS)

F T R	30.7	60.0	5.8	2.5	1.0	14.9	43,3

Comments

In consideration of the reduced size of the tobacco strands, in the components of the cut-filler (strips and stems), and the lack of ingredients, ie. humectants, we can say that the physical characteristics of the cut-filler and those of the cut-rolled-stems (CRS) proved to be of good quality.
Even so, we should keep in mind that 12 % moisture tobacco out-put, for such a special Virginia type of cut-filler, is far too low.
At this time, no results concerning the total qualities of the cigarette prototypes produced were available. A complete evaluation will be presented in the next report.

ANF/cap/MAY 26 1981

0000144367

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : CIGARETTE DEVELOPMENT 3

PERIOD COVERED : APRIL 30 - MAY 20 1981

WRITTEN BY : Nagel-P. (PHN)

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266 HARVARD

Objective

To improve the taste quality of MURATTI 2000.
To decrease the smoke delivery to 6 mg tar.

Summary

In view of the negative test results, further development was necessary. The new guide-lines were established during the meeting with the Marketing Department held on May 6th 1981 in Lausanne as follows :

1. Using the construction of prototype No 131 P (triple filter), trials will be carried out with the CALIFORNIA blend No CH0336402N02 containing :

Reconstituted	26.8 %
Expanded tobacco	18 %
Flue-cured	22 %
Burley	14 %
Maryland	4 %
Orient	15.2 %
Flavour system	Same as that of the MAA 42

2. In case no improvement is found as far as the organoleptic characteristics are concerned, the blend composition as well as the flavour system should be revised.

ϕ00014436B

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

399 TEXAS PRODUCT TEST IN SWITZERLAND

Objective

To develop an ultra-low tar cigarette of the air-cured type with the following characteristics :
TAR = 3.0 mg/cig.
SN = 0.3 mg/cig.
CO 5.0 mg/cig.
NO 0.1 mg/cig.
Puff count : 7
Format : 7.95 / 25 / 79.4 mm

Summary

Between February 16th and March 14th 1981, two TEXAS prototypes, Nos 10 and 12, were consumer tested against the current BRUNETTE NO 3.
Each cigarette was tested against the other in three paired comparison tests by current FLINT regular smokers and by smokers of the other light brands.
The results of the test can be summarized as follows :

- Current FLINT smokers like both prototypes equally well.
- The smokers of the other light brands preferred prototype No 12.

Another test is in the field (prototypes Nos 10, 12, BRUNETTE NO 3 and SELECT NO 2) and its results will be known by the end of June.
In the final decision, the results of both tests will be taken into consideration.

00001443 69

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

414 POSTUP

Objective

TAR = 17 mg/cig.
SN = 1.2 mg/cig.
Format : 7.95 / 20 / 84 mm
Taste direction : American blend

Description of samples and results

A series of cigarette prototypes, with two different blends and non-tobacco materials coming from Yugoslavia, were produced at FTR. Control cigarettes were also produced by using the standard materials from FTR.
Panel A's evaluation showed clearly that, although filter and tipping paper from Yugoslavia could still be used, the cigarette paper has to be imported. This was a confirmation of earlier findings that cigarette paper plays a major role in the taste and this becomes even more important when combined with a relatively cheap blend.
It was therefore decided that only the four cigarettes using the standard cigarette paper, Wattens 60 P, can be taken into consideration and will be submitted to Area IV.

Characteristics and analytical results

See table next page.

P. Vagel

PHN/cap/MAY 26 1981

Φ0001443 70

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PROJECT NAME : P O S T U P		PROJECT NO : 414		PROJECT LEADER : PHN		DATE : May 8th 1981
PROTOTYPE NO		1	3	5	2	4
BLEND NO		YU0141401N02 (A) ----------			YU0341401N02 (A) ----------	
TA	%	1.69	1.73	1.69	1.64	1.62
NITRATE-NITROGEN	%	0.21	0.20	0.20	0.11	0.11
REDUCING SUGARS	%	10.9	10.2	10.2	13.2	13.6
FORMAT : DIAMETER	mm	7.95 ----------				
FILTER LENGTH	mm	20 ----------				
CIGARETTE LENGTH	mm	84 ----------				
TOTAL WEIGHT	mg/cig.	1075	1065	1073	1073	1068
TOBACCO WEIGHT AT 12 % O.V.	mg/cig.	835	829	828	840	831
CIGARETTE RTD	mm WG	111	112	115	112	117
DILUTION	%	0	0	0	0	0
CIGARETTE PAPER		WP 60	WP 60	RIJEKA-24	WP 60	WP 60
TIPPING PAPER		Liège FTR	Liège YU	Liège YU	Liège FTR	Liège YU
FILTER : TYPE		MLKPB	MLK-YU	MLK-YU	MLKPB	MLK-YU
TOW		3.4 I / 46			3.4 I / 46	
ADDITIVE		----	----	----	----	----
PAPER		FU-POV 40 L			FU-POV 40 L	
RTD	mm	62	65	66	63	67
TAR	mg/cig.	17.6	17.3	16.2	17.4	17.2
SN	mg/cig.	1.22	1.19	1.08	1.23	1.21
CO	mg/cig.	19.5	18.8	16.2	18.4	19.1
NO	mg/cig.	0.28	0.27	0.27	0.17	0.17
PUFF COUNT		9.5	9.2	9.2	9.6	9.7

THE CIGARETTES ARE SMOKED ON A PM 20 PORTS.

Φ0001443Z1

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : CIGARETTE DEVELOPMENT 4

PERIOD COVERED : APRIL 21 - MAY 20 1981

WRITTEN BY : Toïmil-R. (RAT)

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405 GAMMA ULTRA

Objective

To extend the GAMMA family by a king-size American type cigarette having the following smoke yield :
TAR : 1.5 mg/cig.
SN : 0.15 mg/cig.

Summary

Prototype 23 P was presented to and accepted by the Marketing Department of Area III.
The final development report was distributed with the provisional specifications.

Follow-up

Following the different requests of the Marketing Department, glue applicators, with a 10 mm-wide neutral zone (presently 6 mm), were ordered in order to be able to use micro-laser tipping papers with 8 lines of perforations from Malaucène. Trials with these glue applicators will start in June 1981.
The different materials necessary for carrying out trials whose aim is to confirm the results already obtained at FTR on prototypes 23 P1, 23 C1 and 23 C2 were sent to Munich.
The firm Benkert is able to supply us with mechanically perforated tipping papers which are much cheaper than the macro-laser tipping papers from Malaucène. Tests will be carried out on the former.

00014372

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

404 ALFA

Objective

To re-engineer the MERCEDES KS brand in order to obtain the following smoke yield :
DPM : ≤ 16 mg/cig.
SN : ≤ 1 mg/cig.

Summary

Prototypes 12 P (first step) and 10 P (final step) were accepted by the Marketing Department of Area III.
The final development report as well as the preliminary specifications of the first and final steps were distributed.

413 PALINKA

Objective

To produce the MPK brand in Hungary.

Summary

Upon request of the Operations Department of Area IV, flavours and materials necessary for carrying out preliminary trials of this project were sent to Hungary (production center : Eger).

Φ00014437 3

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

192 BELTOISE

Objective

To introduce the MURATTI AMBASSADOR EXTRA MILD sold in France into the Italian and export markets.

Summary

Trials were organized in Holland and at FTR in order to prepare the first production of this product.

Poirier

RAT/cap/MAY 21 1981

0000144374

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : CIGARETTE DEVELOPMENT 5

PERIOD COVERED : APRIL 28 - MAY 20 1981

WRITTEN BY : Du Bois-J.-H. (JHD)

E U C

Objective

- To establish a detailed study of our 1980 activities concerning "Marketing / Operations" and R & D projects.
- To study a system of planification which would enable each person concerned to know which things have to be done and when.

Results

A detailed net-work with a full list of "Events" and "Activities" has been established.
This net-work shows that, assuming we have no raw materials on hand, it takes 180 working days between the moment we receive an input from the Marketing Department and the moment that the prototype has been tested in a market test. This time does not include the fact that more than one prototype has to be produced before a test is prepared.

Follow-up

The net-work and related materials will be discussed with the project leaders in order to establish a final standard model. Furthermore, a simulation program will be established for a certain number of projects.

00014375

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

SIMULATION

Results

The analytical results of the simulation prototype are within 10 % of the calculated figures.
This result is very encouraging.

Follow-up

The technical construction of the prototype will now be used for UK project JAVELIN.

J. DuBois

JHD/cap/MAY 20 1981

Ф00014437б

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE	:	MATERIAL DEVELOPMENT
PERIOD COVERED	:	APRIL 29 - MAY 22 1981
WRITTEN BY	:	Erkohen-E. (ELE)

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1. CIGARETTE PAPER

Glatz 130 Molettevergé

Objective

Reduction in CO in MLF and MLK brands through the use of cigarette paper.

Summary

In October 1980 Glatz stated that they could produce a cigarette paper that would reduce CO values. We received five bobbins of a paper similar to WP-60 (Reference 1) and MLF-CH cigarettes were made.

Description of Samples and Results

The smoke delivery analyses for the cigarettes with the important physical cigarette parameters are given in the table on the following page.

Conclusion

All smoke deliveries are on the same level compared to the standard. Although the supplier insisted that we should be able to decrease the CO level with this new technique applied to paper, no decrease was noted.

ϕ00014437?

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Table 1

	MLF-CH Trial	MLF-CH Control
Cigarette Paper	J. Glatz 130 Moletteverge	WP-60
Permeability $\frac{1}{2}$" "ml/min cm"	58	53 ± 5
Tobacco Weight at 12% o.v. "mg"	794	791
RTD of Cig "mm WG"	91	89
RTD of Filter "mm WG"	63	62
Dilution "US" %	20 ± 3	20 ± 3
TA %	1.82	1.79
RS %	7.6	7.6
Nitrate-N %	0.19	0.18
Ammonia-N %	0.31	0.31
CO mg/cig	17.1	16.1
NO mg/cig	0.26	0.24
TPM mg/cig	19.9	18.3
DPM mg/cig	17.5	16.3
SN mg/cig	1.18	1.13
Puffs	9.4	9.4
HCN µg/cig	223	194
Aldehydes mg/cig	1.28	1.26

0001443 78

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

2. NEW FILTRATION MATERIAL

Eastman 3.3/44.000 Y Tow

Objective

3.3/44.000 tow evaluation. Possible replacement of the existing 3.4/46.000 I by this item.

Summary

In September 1980 Eastman submitted a 3.3/44.000 Y tow similar to the type used in PM-USA. The first test run on the "capability" of this tow was not conclusive. In the meantime PM-USA changed the lot number, so we ordered a new bale similar to the type PM-USA is now using. On 23rd January 1981 trial runs on a KDF rod maker were made without any difficulty with this tow. The item was evaluated on the basis of its capacity curve (Reference 2). For a 375 mm WG RTD level, we noticed that an economy of 5% of cellulose could be made by using the 3.3/44.000 Y. Then MLF-CH cigarettes were made by using these filters and these were compared to MLF-CH standard cigarettes. From the smoke delivery point of view, no difference was noticed between trial and control cigarettes. These cigarettes were submitted for taste evaluation. The different panels did not notice any significant difference in taste. It was decided to make a Panel D test (mail-out test) for further evaluation.

Follow-up

MLF-CH cigarettes were produced with filter tips made with the 3.3/44.000 Y tow and with the 3.4/46.000 I item. The cigarettes will be checked once again before the test is mailed out. We expect to make a final decision, based upon the mail-out test, at the end of July.

3. STUDY: Cigarette Construction

Objective

Prediction of the type of filtration material to be used on a prototype in order to reach the required level of dilution and smoke deliveries.

00014437

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Summary

A brief description of the model is given in the block diagram (Figure 1).

Overview

The model is based upon the Scotch Study (Reference 3). As this study is limited by the range of dilution covered (10-40% FTR), the prediction out of these limits of dilution is not reliable.

Follow-up

The model will be further developed as soon as other results are available for the Scotch Study.

References

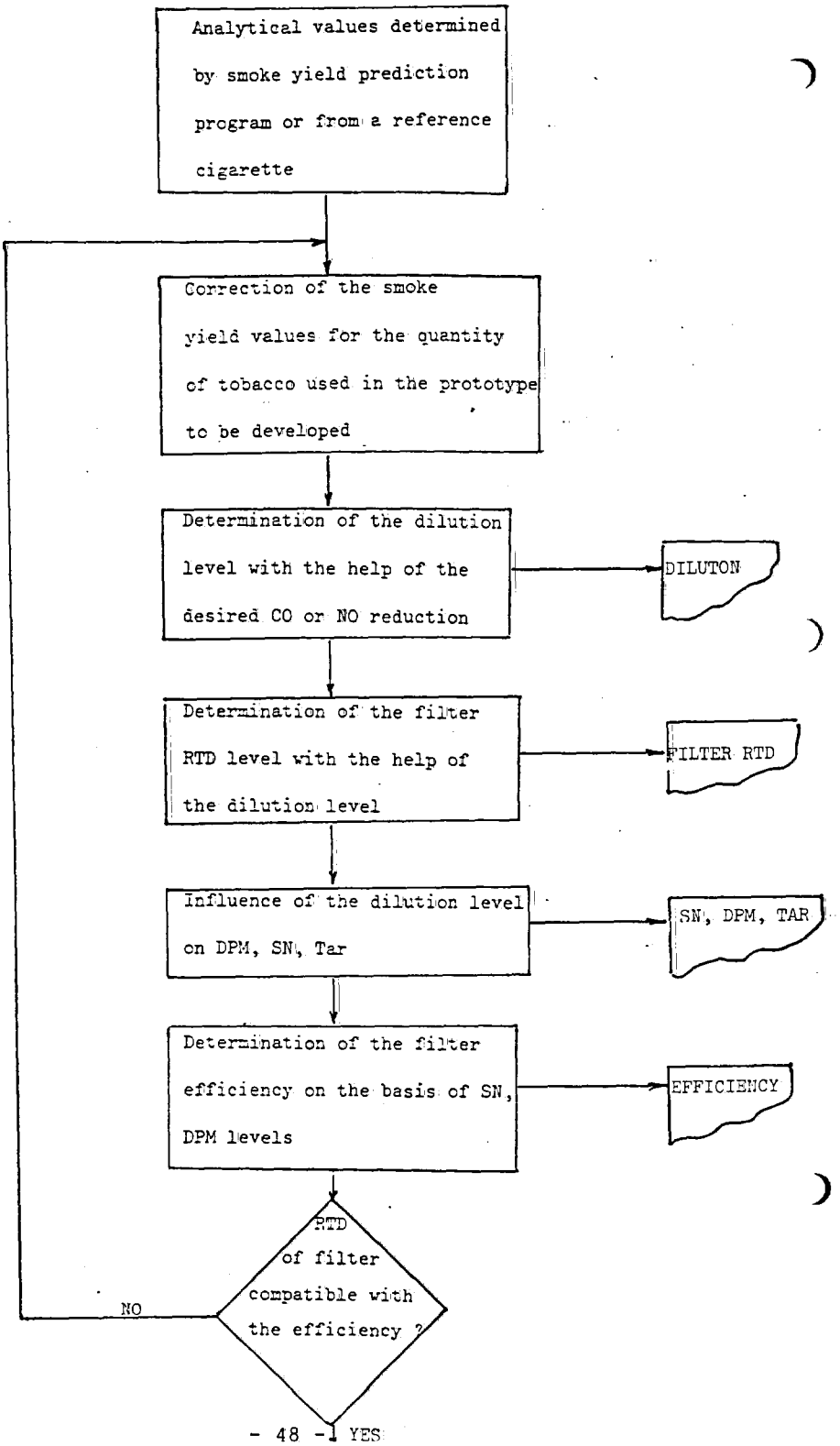
1. Erkohen-E Monthly Report (March 1981)
2. Erkohen-E Monthly Report (February 1981)
3. Joseph-L Monthly Report (April 1981).

ELE/nod/MAY 27 1981

0001144380

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

FIG I



0000144381

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : TOBACCO STUDIES

PERIOD COVERED : MAY 1 - MAY 22 1981

WRITTEN BY : Joseph-L. (LIJ)

TOBACCO LOT ANALYSES

Introduction of Inputs on EDP

Partial analytical results of ten lots were introduced in the PME Analytical Data List.

Lots under Evaluation

Fifty-eight lots.

Lots available, but not yet analysed

Forty lots.

ASSISTANCE TO OTHER PROJECTS

SPOTLESS

We have received five samples of the B-TOT blend, each one with a different treatment: washed, washed + addition of fermented extract at different concentrations, washed + addition of different potassium salts.

REFERENCE CIGARETTES

Eight reference cigarettes were made this month: five with PRINCE blends that were processed differently, two with COMMONWEALTH blends and one with a COLORADO blend.

MISCELLANEOUS

Reconstituted Tobacco ex ITALY

We have received two samples of Italian reconstituted tobacco that is used in Diana. Because of difficulties encountered on the production cigarette maker, cigarettes must be handmade.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Blackfats

TLA cigarettes were handmade with two small samples of blackfat tobacco. The physical quality of the cigarettes was not very good due to the bad quality of the samples (cased loose leaves). After the equilibration of the cigarettes, we observed that the cigarette paper was stained with the casing.

Expanded Tobaccos ex Onnens

The TLA analyses of FC, CH and BUR blends before and after expansion are available. The main changes due to expansion are:

1) For the ET-FC blend we have (see Table 1):

a) per cigarette

- lower TA level (-34%)
- lower CO delivery (-26%)
- lower DPM delivery (-53%)
- lower SN delivery (-70%)
- lower puff count (-50%)
- lower HCN delivery (-21%)
- lower aldehyde delivery (-33%)

b) per gram of burnt tobacco

- higher CO delivery (+40%)
- lower SN delivery (-43%)
- slightly lower puff count
- very high HCN delivery (+53%)
- higher aldehyde delivery (+28%)

c) per puff

- higher CO delivery
- lower SN delivery
- higher HCN delivery
- higher aldehyde delivery

We also observe an increase of the CO/TAR ratio (+ 52%).

Φ0001443B3

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Table 1

Comparison of the FC blend before and after expansion (ETNA process).

ET-FC Blend	Lot 0707 before Expansion	Lot 0707 after Expansion	Comments
Tobacco Weight (mg/cig)	853	444	
RTD (mm H_2O)	98	150	
Firmness (mm)	5.43 at 13.6% m.c.	3.83 at 11.3% m.c.	
Cylinder Volume (ml/10 g)	32.1 at 11.6% m.c.	73.1 at 10.0% m.c.	
TA (%)	2.06	1.36	- 34% reduction
RS (%)	19.9	15.1	- 24% reduction
NO_3-N (%)	0.00	0.00	
Chloride (%)	0.44	0.45	
Ash (%)	10.1	10.6	
Smoke Analyses			
CO (mg/cig)	17.0 (22.8)	12.5 (32.1)	- 26% (+ 40%) reduction (increase)
NO (mg/cig)	0.06 (0.08)	0.03 (0.08)	
DPM (mg/cig)	25.0 (33.5)	11.8 (30.3)	- 53% reduction
SN (mg/cig)	1.85 (2.48)	0.55 (1.41)	- 70% (- 43%) reduction
Puff (puff/cig)	11.5 (15.4)	5.7 (14.7)	- 50% reduction
HCN (µg/cig)	257 (344)	204 (525)	- 21% (+ 53%) reduction (increase)
Ald (mg/cig)	1.86 (2.49)	1.24 (3.19)	- 33% (+ 28%) reduction (increase)
CO/TAR	0.73	1.11	+ 52% increase

The values in parentheses are calculated per gram of burnt tobacco.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

2) For the ET-CH blend we have (see Table 2):

a) per cigarette

- lower TA level (-12%)
- higher NO_3-N level (+16%)
- lower NH_3-N level (-33%)
- lower CO delivery (-28%)
- lower NO delivery (-25%)
- lower DPM delivery (-33%)
- lower SN delivery (-58%)
- higher HCN delivery (+24%)
- lower aldehydes delivery (-10%)
- lower puff count (-40%)

b) per gram of burnt tobacco

- higher CO delivery (+18%)
- higher NO delivery (+22%)
- lower SN delivery (-32%)
- very high HCN delivery (+102%)
- higher aldehydes delivery (+47%)

c) per puff

- slightly higher CO delivery
- higher NO delivery
- lower SN delivery
- higher HCN delivery
- higher aldehydes delivery

We notice a slightly higher CO/TAR ratio (+ 7%).

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Table 2

Comparison of CH blend before and after expansion in the ETNA process.

ET-CH Blend	Lot 0801 before Expansion	Lot 0801 after Expansion	Comments
Tobacco Weight (mg/cig)	687	420	
RTD (mm H_2O)	116	146	
Firmness (mm)	2.79 at 10.7% m.c.	2.32 at 10.4% m.c.	
Cylinder Volume (ml/10 g)	53.4 at 9.8% m.c.	89.3 at 9.3% m.c.	
TA (%)	0.83	0.73	- 12% reduction
RS (%)	0.6	0.3	
NH_3-N (%)	0.66	0.44	- 33% reduction
NO_3-N (%)	0.25	0.29	+ 16% increase
Chloride (%)	0.34	0.39	
Ash (%)	19.4	19.8	
Smoke Analyses			
CO (mg/cig)	19.9 (33.1)	14.4 (39.1)	- 28% reduction (+ 18% increase)
NO (mg/cig)	0.35 (0.58)	0.26 (0.71)	- 25% reduction (+ 22% increase)
DPM (mg/cig)	20.4 (33.9)	13.6 (37.0)	- 33% reduction
SN (mg/cig)	0.89 (1.48)	0.37 (1.01)	- 58% (-32%) reduction
Puff (puff/cig)	7.8 (13.0)	4.7 (12.8)	- 40% reduction
HCN (µg/cig)	217 (361)	268 (729)	+ 24% (+ 102%) increase
Ald (mg/cig)	1.68 (2.79)	1.51 (4.11)	- 10% reduction (+ 47% increase)
CO/TAR	1.02	1.09	+ 7% increase

The values in parentheses are calculated per gram of burnt tobacco.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

3) For the ET-BU blend we have (see Table 3):

a) per cigarette

- lower TA level (-21%)
- lower NH_3-N level (-40%)
- lower CO delivery (-31%)
- lower NO delivery (-56%)
- lower DPM delivery (-53%)
- lower SN delivery (-74%)
- lower puff count (-53%)
- lower aldehydes delivery (-28%)

b) per gram of burnt tobacco

- higher CO delivery (+48%)
- lower SN delivery (-45%)
- higher HCN delivery (+106%)
- higher aldehydes delivery (+54%)

c) per puff

- higher CO delivery
- lower SN delivery
- higher HCN delivery
- higher aldehydes delivery.

We observe a higher CO/TAR ratio (+ 39%).

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Table 3

Comparison of BUR blend before and after expansion in the ETNA process.

ET-BU Blend	Lot 0900 before Expansion	Lot 0900 after Expansion	Comments
Tobacco Weight (mg/cig)	886	414	
RTD (mm H_2O)	147	184	
Firmness (mm)	2.16 at 12.3% m.c.	2.17 at 11.0% m.c.	
Cylinder Volume (ml/10 g)	50.5 at 10.5% m.c.	112.5 at 9.8% m.c.	+ 116% increase
TA (%)	2.34	1.85	- 21% reduction
RS (%)	1.5	1.1	
NO_3-N (%)	0.46	0.47	
NH_3-N (%)	0.57	0.34	- 40% reduction
Smoke Analyses			
CO (mg/cig)	17.3 (22.3)	12.0 (33.1)	- 31% reduction (+ 48% increase)
NO (mg/cig)	0.59 (0.76)	0.26 (0.72)	- 56% reduction
DPM (mg/cig)	19.2 (24.8)	9.1 (25.1)	- 53% reduction
SN (mg/cig)	1.84 (2.37)	0.47 (1.30)	- 74% (- 45% reduction)
Puff (puff/cig)	10.0 (12.9)	4.7 (13.0)	- 53% reduction
HCN (µg/cig)	196 (253)	189 (521)	(+ 106% increase)
Ald (mg/cig)	1.33 (1.72)	0.96 (2.65)	- 28% reduction (+ 54% increase)
CO/TAR	1.00	1.39	+ 39% increase

The values in parentheses are calculated per gram of burnt tobacco.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

For all kinds of ETNA, the observed reductions of the deliveries per cigarette are obviously due to the reduction of the tobacco weight. We have also a greater SN reduction than would be expected only from the tobacco weight reduction. This is due to the TA loss during the expansion process.

The only really surprising results are the HCN values: we observe a very large increase per gram of burnt tobacco. To a lesser extent there is an increase in the NO_3-N and NO values for the ET-CH blend.

LIJ/nod/JUNE 1 1981

Φ0001443B9

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : INGREDIENT AND FLAVOUR DEVELOPMENT

PERIOD COVERED : MARCH 25 - MAY 25 1981

WRITTEN BY : Patton-J.-P. (JPF)

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266 / 271 HARVARD / COLORADO

Objective

Development of aftercutting solutions for Muratti type brands.

Summary

The Colorado version 98 containing SFC-me-10 is being tested against the new flavoured version and MAG 01. No results are as yet available.

The results of the Harvard test were negative. Modifications will be made using the California blend. Any further development will take the results of this trial into consideration.

278 EVEREST

Objective

Fine tuning of the cigarette taste.

Summary

In order to eliminate the artificial and biting side of the cigarette taste, two new recipes were established and cigarettes were made.

Description

EPC 8	containing	C4D C103
EPC 9	containing	C4D C4S

Φ000144390

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

335 LOLITA

Objective

Development of new flavouring ingredients to improve the taste of the existing brand.

Summary

Two versions will be tried in a market test:

- Version 52 containing SFC 178 and
- Version 53 containing SFC 178 combined with deer tongue extract.

365 BARBARA

Objective

Development of a full flavoured American blend cigarette for Germany.

Summary

Several trials were made with EAC 25 containing SFC 173 received from Richmond.

Cigarettes were made at FTR (Prototype 30) and in Munich (Prototype 41).

Follow-up

The best prototype will be chosen for a market test.

416 PRINCE

Objective

Development of a new cigarette in line with "Prince Denmark" for Germany.

Φ00014391

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Summary

Several prototypes with different ingredients have been produced without aftercutting flavour.

Version A EPC 6, without burley treatment

Version B CD4APC, without burley treatment

Version C EBC 19, ETF3, EPC 7

Version D EBC 18, ETF3, EPC 7

Version E EBC 18, ETF3, CD4APC.

Panel A has tested these versions and chosen Prototype No. 8 containing Version B ingredients. It seems to be more elegant and gives more satisfaction than the others.

208 TENNIS

Objective

Fine tuning of the cigarette taste to the sweet side.

Summary

Three new recipes were established: EAC 77, EAC 78, EAC 79.

These recipes contain the same ingredients as EAC 46, but in different proportions.

JPF/nod/MAY 27 1981

ϕ000144392

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : MATERIAL TESTING

PERIOD COVERED : APRIL 21 - MAY 31 1981

WRITTEN BY : Balliger-P. (PBA)

POROUS PLUG WRAP

Glatz HF 40K-28, 4/2 variation

This quality of filter paper developed by Glatz corresponds almost exactly to our standard quality FU POV 40L which is currently used for the majority of our filters with porous wrappers.

The diluted Marlboro cigarettes produced with this material were not, however, judged to be satisfactory by the smoking panel.

CIGARETTE PAPER

In order to obtain a second supplier of cigarette paper for MLK-DB cigarettes produced in Berlin, several versions corresponding to our standard quality, Pela 200 Mn, were recently evaluated, namely:

- Glatz NSP 200, 1/2 and 2/2 versions.
  Neither of these filter papers proposed by this supplier were accepted, mainly for reasons of taste.

- Mauduit 1105 A Verge
  From the analytical and taste points of view, the Marlboro cigarettes produced with this quality of paper were satisfactory. Consequently, an industrial trial will be carried out in the near future in Berlin in order to evaluate the performance of this new material on machines.

Mauduit 753 bis

This cigarette paper is an alternative to the standard Wattens WP 60 paper generally used.
In order to have a wider choice of cigarette papers which are suitable for the Merit brand, sample cigarettes were produced by PMG Munich with this material.
The smoke yield and taste evaluation were positive; it was therefore decided to organize an industrial trial in order to determine the performance of this new cigarette paper on machines and to confirm the analytical results obtained.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Schoeller & Hoesch, Pela 200 P

Due to the fact that the quality of the cigarette paper Pela 200/09 used for the BRT brand is not entirely satisfactory, (combustion rate too high), Schoeller & Hoesch were requested to develop a new version based on the addition of phosphates which would apparently give a more suitable combustion as compared with acetate which was previously used. Indeed, the sample cigarettes produced with this new material corresponded analytically to our objective. However, the taste evaluation carried out on these cigarettes was not conclusive.

This supplier will again be contacted in the near future in order to follow up the development of this material.

TIPPING PAPER

Enterlein Z3/60 mglt

In order to have several suppliers for electrostatically perforated cork tipping paper, Enterlein was requested to submit sample bobbins to FTR.

According to lab results, the main characteristics of this material correspond to the Benkert Z3/60 standard quality.

However, diluted Marlboro produced with this tipping paper were refused for reasons of taste.

TECHNICAL SHEET

Cigarette paper

No. 30 0055 120-8 Verge Mauduit

PBA/edk/JUNE 5 1981

00014394

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : CIGARETTE AND SMOKE ANALYSIS

PERIOD COVERED : APRIL 21 - MAY 20 1981

WRITTEN BY : Senehi-F. (SEF)

COLLECTIVE TEST IN SWITZERLAND

The Swiss Association of Cigarette Manufacturers organized a collective test on three cigarettes having different levels of tar in order to compare the smoke yield results obtained by the manufacturers with those obtained by the Official Cantonal Laboratories of Zurich and Vaud (Ref. 1).

The following table summarizes these results:

Participants of this test	Smoking Machine	Cig. A		Cig. B		Cig. C	
		Tar (mg/cig)	SN (mg/cig)	Tar (mg/cig)	SN (mg/cig)	Tar (mg/cig)	SN (mg/cig)
Cant.Vaud	Filtrona 302	16.9	1.14	7.0	0.62	3.2	0.32
Cant.Zurich	Filtrona 302	16.2	1.13	7.6	0.63	2.7	0.28
BAT	Filtrona 302	15.9	0.94	7.4	0.49	2.1	0.24
Burrus	Filtrona 300	16.9	1.11	8.3	0.62	3.5	0.34
FTR	Filtrona 300	16.8	1.14	8.2	0.62	3.4	0.32
Laurens	Borgwaldt RM 20	17.7	1.18	8.8	0.66	3.4	0.32
Reynolds	Borgwaldt RM 20	16.5	0.97	8.5	0.54	3.2	0.29
Rinsoz	Borgwaldt RM 20	16.9	0.84	8.2	0.43	4.1	0.28
General Average		16.73	1.06	8.00	0.58	3.20	0.30
standard deviation s		0.54	0.12	0.61	0.08	0.59	0.03

Table 1 : Collective test in Switzerland

Comments

1. The Cant. Laboratory of Vaud, which uses a Filtrona 302 smoking machine, found on average practically the same tar values as the other participants using Filtrona 300 or Borgwaldt smoking machines. The lower tar result obtained by the Cant. Laboratory of Vaud with cig. B is due to an abnormally high value of water (Tar = TPM - Water - SN).

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

2. On the contrary, the Cant. Laboratory of Zurich, which also uses the Filtrona 302 smoking machine, found on average lower tar values but the same SN values as the other participants using the Filtrona 300 smoking machine.

3. FTR found tar values which were very close to the general average for each cigarette considered.

PRODUCT REPORTS

Product reports were written on the following new or modified brands:

Brands	Manufacturer	Country of Sale
Jean Bastos 70/NF (national relaunch, re-designed pack)	Badische T.	West Germany
Cartier Luxury Mild 94/F (new brand)	Brinkmann	West Germany
Champagne 84/F (new brand)	SEITA	France
Gauloises blue way 80/F (new brand)	SEITA	France
Gauloises blue way 80/NF (new brand)	SEITA	France
Gitanes légères 84/F (new brand)	SEITA	France
More 120/F (new pack in box)	Reynolds	Italy
Lord extra mild taste 80/F (line extension)	Rothmans	Switzerland

REFERENCE

1. Senehi-F report "Procès-verbal de la séance de la commission scientifique de l'ASFC du jeudi 7 mai 1981 à Berne" (May 15 1981)

Senehi

0001443396

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : QA ANALYTICAL SERVICES

PERIOD COVERED : APRIL 29 - MAY 20 1981

WRITTEN BY : Widmer-A. (ALW)

3.2.1. TRIALS WITH NEW SUPPLIES OF TOBACCO INGREDIENTS

- Diethylene glycol (PMG Berlin) (Ref. 1)

  Two industrial trials on MLK-DB - cigarettes were organized with products from BASF and BAYER.

  Smoking Analyses: No significant differences were found between the standard and the trials.

  Subjective evaluation (Panel A): A singificant difference between the standard and the trials was found. The trial with diethylene glycol from BASF was considered to be better than the standard and the trial with diethylene glycol from BAYER.

  In order to confirm this result a second industrial trial with the material from BASF will be organized by PMG Berlin.

- Licorice in blocks (Ref. 2)

  The two samples (PREZIA, Siderno(Italy) and FICHERA, Catania(Italy))corresponded to our specifications.

- Flavour 153 (SFC 153) (PMI, New York/yellow sheet 5944, 1000 kg) (Ref. 3)

  A subjective evaluation (check) was organized on the first industrial production with this flavour on BSD, MAH and MER cigarettes.

  No significant difference to the standards was found. Concluded on 11/05/81

3.2.2. QUALITY CONTROL OF TOBACCO INGREDIENTS

- Honey (SCHUETTE & CO, Bremen (Germany)/blue sheet 8552, 10000 kg)

  Important differences as regards the colour of the contents from one drum to the other were observed.

  17 drums out of 34 were blocked because of the dark brown or black colour. Chemical analyses (sugar and water - contents) were within specifications.

  Hydroxy methyl furfural (HMF) was determined in five samples of the blocked drums. The HMF-value gives an indication as to whether any adulteration by invert sugar has been done, or whether the honey was overheated.

Φ00014439?

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

Values between 6.5 up to 122 mg HMF/100 g honey were found. The higher this value became, the darker was the sample.

In a reference sample a value of 3.8 mg/100 g was found.

On the basis of these results the 17 drums in question were returned to the supplier.

3.4.1. TRIALS WITH NEW SUPPLIES OF FILTER COMPONENTS

- Activated Charcoal (H. FORRER SA, Zollikon (CH); NESS (GB) / yellow sheet 6014, 2 x 500 g)

  Two qualities were submitted. The quality "CK 830" was largely out of specifications as regards the CCl_4-index (42.2 % !).

  The quality "CC 1230 M" was slightly out of specifications as regards CCl_4-index (58.8 %) and granulometry (3.2 % on the sieve of 14 Mesh).

  A meeting between Quality Assurance and a representative of this supplier will be organized in order to discuss the results.

3.5.1. TRIALS WITH NEW SUPPLIES OF FILTER GLUES

- Hot Melt for filter rod seam (DELFT CHEMIE SA, Winterthur; "CIE LOK 80 / 234 - 2980" / yellow sheet 5820, 50 kg and yellow sheet 5943, 50 kg)

  This product is used as a standard glue in PMG and PMH. Two industrial trials on MLF cigarettes were organized.

  Machineability: Identical to the standard glue

  Storage: After two months, no difference between this and the standard glue was observed.

  Smoking analyses: No significant differences between the trials and standards were observed.

  Subjective evaluation (Panel B): In both trials a significant difference between the standard and test-cigarette was found. Both trials were rejected.

  As taste problems in connection with this glue were observed in PMH, the qualification of this supplier will be checked.

- Hot Melt for filter seam ("LUNATACK C 5830" and "LUNATACK C 5316", ex FULLER GmbH)

  An industrial trial on PMS-FR cigarettes was organized by PMG Munich.

  Machineability: "LUNATACK C 5316" gave problems of adhesiveness and was rejected. "LUNATACK C 5830" was identical to the standard glue.

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Storage: The seam of the filter rods with "LUNATACK C 5830" opened already after a couple of days.

Concluded on 18/05/81

- Liquid glue for filter rod seam (W. LAESSER AG, Erlinsbach, "LESSO 1747/83", 25 kg)

The glue application system of a KDF II in Cousset concerning the filter rod seam was modified. Instead of Hot Melt a liquid glue will be applied through a nozzle. An industrial trial on MLF - cigarettes was organized.

Machineability: The glue showed good adhesive properties. However, at a higher machine speed gluing problems were encountered.

Smoking analyses: No significant difference between the trial and the standard was observed.

Subjective evaluation (Panel A) : A significant difference was found between the trial and the standard. The trial was rejected.

Trials will be continued in order to find an acceptable liquid glue.

3.6.1. TRIALS WITH NEW SUPPLIES OF TIPPING GLUES

- "5008/A 33" (ex WIKOLIN) (Ref. 4)

The trial on PMS-FR cigarettes was organized by PMG Munich.

Machineability: Identical to the standard glue.

Smoking analyses: No significant difference between trial and standard was observed.

Subjective evaluation (Panel A): The trial was accepted.

It is planned to organize a long-term test before qualifying this supplier.

- "32 WE 117" (ex FULLER GmbH)

An industrial trial on PMS-FR cigarettes was organized by PMG Munich.

Machineability: Not as good as the standard glue by a long way.

Further trials are not planned.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

3.7.1. TRIALS WITH NEW SUPPLIES OF CIGARETTE SEAM GLUES

- "LESSO 5073" (W. LAESSER, Erlinsbach/yellow sheet 5934, 5 kg)

  This trial on MLF-CH cigarettes was organized within the framework of trials with glues on a PVA-basis. For this glue no special permission was requested from the German authorities.

  Machineability: Better adhesive properties than the standard glue. Comparable with the other glues on a PVA-basis.

  Smoking analyses: No significant difference between standard and trial was observed.

  Subjective evaluation (Panel B): A significant difference between the trial and standard was found. The trial was rejected.

  Further trials are not planned.

- TÜRMERLEIM NAT 5 (JULES HESS, Zürich; ex TÜRMER/yellow sheet 5955, 5 kg) (Ref. 5)

  The glue is in powder form and its basis is starch. The powder has to be dissolved in water and filtered before use. The purpose of the trial was to check if, in the case of the installation of the KAYMICH-System in PM Nigeria, a liquid glue would be available.

  Preparation: No special problems were encountered. The optimal ratio of water and solid was 4 to 1.

  Machineability: The glue was applied without problem under the same conditions as the standard glue. The adhesivity is comparable with that of the maize starch.

  For a possible alternative to the standard glue, in case of difficulties with the latter, a subjective evaluation (Panel B) was organized. However, a significant difference was found. The trial was rejected.

  Further trials are not planned.

3.12. QUALITY CONTROL OF CIGARETTE PAPER

- ECUSTA 11/708 (PMG Munich) Ref. 6)

  The physical analyses showed an insufficient combustibility of this paper possibly due to an incorrect quantity of citric acid.

  Citric acid was determined by HPLC on a "Lichrosorb 10 RP 8" column. An average value of 0.44 % of citric acid monohydrate on five samples was found. This value is within specifications (0.55 % $\pm$ 0.25 %).

0000144400

Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

5. SERVICES FOR OTHER GROUPS

- Analyses for foil mentholating
  Menthol in cigarettes (23 samples)

REFERENCES

1. Monthly report Widmer-A (October 1980)
   Monthly report Widmer-A (December 1980)
   Letter from Widmer-A to Reinboldt-W (May 12 1981)
2. Letter from Schwarb-A to Trento-A (April 21 1981)
3. Monthly report Widmer-A (April 1980)
4. Monthly report Widmer-A (April 1980)
   Letter from Widmer-A to Lutzig-B.W. (May 13 1981)
5. Letter from Widmer-A to Lauenstein-M (March 20 1981)
6. Telex from Balliger-P to Lutzig-B.W. (April 6 1981)

ALW/edk/MAY 27 1981

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : SPECIFICATIONS

PERIOD COVERED : APRIL 28 - MAY 22 1981

WRITTEN BY : Flury-C. (CAF)

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1. FTR Switzerland (References 1 - 5)

The brand Flint King Size Box FLK will not be manufactured any more.
The brand versions BAS 003, LMB 028, MAA 023, MLF 033, and MLF 071 will not be produced any more.

The light quality (375) shipping cases have been replaced by more resistant cases (quality 664).

The specs for the new brand BRT Brunette No 3 have become final. For the black semi-manufactured filter, only the Eastman tow has been accepted (Rhodiaceta refused). This exceptio has been entered in the "Usage of material" control book.
The basic tobacco weight has been reduced from 532 to 522 mg.

Modified specs have been issued for project "California":
- New blend composition, without Esther, with 18% expanded tobacco.
- Cigarette MAA 09 with MAK 20-mm filter and tipping paper of 48 instead of 44 mm.
- Cigarettes MAK 08 and MPK 01 continue to be produced with the MAK 20-mm filter, but the tipping paper width has been increased from 48 to 54 mm.
- The basic tobacco weights have been reduced

for MAA 09	from 827 to 719 mg
for MAK 08 and MPK 01	from 864 to 781 mg
for MPH 07	from 964 to 877 mg

2. Intertaba Italy

All filter making specs have been brought to the new standard diameters of 7,80 mm for semis and 7,86 mm for filters ready for use. Some other specs have been adapted.

The specs for the filters 34.6224 Combi MAK, 34.0202 MLK white, 34.1200 MLF semi-diluted, 34.7305 MAE combined, 33.6010 MAE semi have been withdrawn.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

3. PMH Holland

PMH's filter making specs have been changed to the use of the filter paper and the glues of the same quality as FTR (taste problem).

Several specs have been added for productions transferred from Eindhoven to Bergen op Zoom.

4. PMG Germany (Reference 6)

Munich have issued their first spec for expansion of tobacco.

All filter making specs have been updated (tow weight, paper 27,5 mm dropped).

5. WELTAB Belgium (Reference 7)

The specs for Marlboro King Size Box (HL) MLB production have been withdrawn (MLB 152 and 157).

Weltab now use a 95 mm instead of a 96-mm inner frame.

For Marlboro MLF 22/23 production, the use of WP 60 cigarette paper (prev.: 110-6) is planned.

6. PM UK Great Britain

Project specs and documentation have been provided regarding project Country 100s UK (MHC Marlboro Red Box), as well as regarding the Merit Boost programme. All PME manufacturing centers, except FTR, are involved in these operations.

7. Licensees

- Yugoslavia:
  The MLK 034 Marlboro King Size file has been updated. Main modification: New standard filter and cig. diameters.
  The BSK 007 Bond Street King Size file has been updated. A new pack version, BSK 300, for export to USSR, has been added.
  The BSQ 301 Bond Street Mild file has also been entirely reviewed.

- South Africa:
  Project specs PME have been prepared for the Rembrandt, Cape Town Production, on the basis of documents obtained from the Area Operation Department.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

- Project specs have been produced for
  "Alfa" - reduction of smoke numbers of the Mercedes KS
  "Palinka" - production of an MPK Multifilter KS cigarette under license, in Hungary.

8. EDP Projects

The preliminary study to determine the business requirements in the specification area has been concluded. The project leaders will recommend to the management to include the specification area in the current EDP projects (production planning, material planning/purchasing, leaf, and OPA), or at least to take the specs into consideration during the progress made with the other EDP projects.

An information meeting with all project leaders took place in Lausanne on May 12, 1981. A presentation to the PME and local managements is planned for June 2, 1981.

The PME coding systems and product links have been discussed at various levels.

In the context of the preliminary study in the specs area, a small computer programme has been developped in FTR. It will allow the cigarette making specs to be handled and all calculations relating to the cigarette dimensions, weights, and AccuRay settings to be carried out. This application will allow
- a maximum automation and standardisation of methods, within PME production centers;
- considerable time saving ;
- elimination of errors (calculation)

The programme is now available to all PME production centers. The QA managers will be informed and documented by SOPA.

REFERENCES : 1 - 5 Specifications FTR, Grossen-E. memos March 16, March 20, April 22, May 7, May 12, 1981

6 Specs PMG, Buchmann-A. memo April 27, 1981

7 Specs WELTAB, Flury-C. memo May 18, 1981

CAF/caf/MAY 22 1981

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE : PROCESS ASSURANCE

PERIOD COVERED : MAY 1 - MAY 31 1981

WRITTEN BY : Bel-T. (THB)

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1. AccuRay - Tobacco weights

Results of the 3-month industrial test were presented during the last annual PME Q.A. Meeting which took place in Berlin.

These results should still be presented to PME management before a final decision may be taken.

The critical point is :

To determine a certain percentage of the specified tobacco weight to be able to fix the reject point.

Concerning the standardization of tobacco weights, no problems were encountered with the Merit brand. Each production center worked with the same specified tobacco weight and realized a maximum saving of tobacco. The situation was different with MLF where, in Weltab, we had to reduce the maximum saving of tobacco from 2,5 to 1,5% due to loose ends. Münich worked for the 3 months with 2,5% but they found too many loose ends especially with Mark 8.

In conclusion, the objective of the trial was partly achieved because everybody could work with the same specified tobacco weight by varying the percentage of saving.

Like the AccuRay limit mentionned above, this standardization will be submitted to PME management so as to take a final decision.

2. Non-tobacco material (reference 1)

A PME trial was organised in different production centers to determine some standard values concerning the quantity of glue applied on the tipping paper. The study has been concluded and a proposition has been sent to each production center for approval.

15. Quality Workshop (reference 2)

The first report has been sent to PME management. It covers the period January to March 1981.

Based on figures found in "PME Finished Products" it shows :

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

- The general tendancy of quality in each production center
- The most important defects encountered
- The different trials which are being carried out to improve our product quality.

T. R.

REFERENCES : 1. Quantity of glue on the tipping paper Bel-T. memo to Q.C. managers (May 1981)

2. Quality Workshop, Monthly report supplement (May 1981).

THB/amk/JUNE 1 1981

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PROJECT TITLE : PATENTS

PERIOD COVERED : April 17 - May 16, 1981

WRITTEN BY : Mandiratta-J-C (MJA)

PROJECT EXIT

The final approval of the New York management has been received for the poor-man's opposition in the West German Patent Office. Dr. Hach has been instructed to submit the same.

PATENTS ISSUED

Luxemburg Patent 81611
Case 28222
Process of enzymatic deproteination of tobacco.

West German Offenlegungsschrift P 29 41 680
Case 28225
Same as above.

British Patent 15 85 023
Case 28190
Process of reducing nitrates and nitrites contained in tobacco (Anaerobic fermentation).

British Patent 15 85 024
Case 28202
Process of reducing nitrates and nitrites contained in tobacco (Aerobic fermentation).

PME PATENT COMMITTEE MEETING

This meeting was held in Neuchâtel on May 13, 1981.
Minutes of the meeting have been sent to all interested.

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PATENT DOCUMENTATION

To date, 7600 documents are on STAIRS system for patent documentation.

MJA/scm/MAY 18 1981

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

PROJECT TITLE	:	LEGISLATION
PERIOD COVERED	:	MARCH 25 - MAY 24 1981
WRITTEN BY	:	Jeanneret-C. (CLJ)

Holland

A warning label and the nicotine and tar content will have to be printed on Dutch domestic cigarette packs.

This statutory order comprises :

- Health warning text "Smoking damages health - Minister of Health and Environment";
- Nicotine and tar content (in this order) in tenths of a milligramme and milligrammes per cigarette respectively.

This legislation will become effective 9 months after publication in March 1982; 3 months' "lead" time is allowed so that in June 1982 all packaging must bear the prescribed texts.

CLJ/jud/JUNE 1 1981

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Source: https://www.industrydocuments.ucsf.edu/docs/ljhk0000

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T. S. OSDENE
JUN 2 8 1981

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